



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/975,376	10/11/2001	Chad A. Mirkin	00-713-i12	9821

7590

05/07/2003

Emily Miao
McDonnell Boehnen Hulbert & Berghoff
32nd Floor
300 S. Wacker Drive
Chicago, IL 60606

EXAMINER

HASHEMI, SHAR S

ART UNIT

PAPER NUMBER

1637

DATE MAILED: 05/07/2003

12

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/975,376

Applicant(s)

MIRKIN ET AL.

Examiner

Shar Hashemi

Art Unit

1637

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02/19/03.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 237-265 and 433-441 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 237-265 and 433-441 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02/20/02 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 12.
- ☐ Interview Summary (PTO-413) Paper No(s). _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

DETAILED ACTION

Status of Application, Amendments, and/or Claims

1. The applicant's response to the Office Action has been entered. The applicant's response was received on 19 Feb 03 and has been entered as paper no. 11. The claims pending in this application are **Claims 237-265 and 433-441**. Rejections and/or objections not reiterated from the previous office action are hereby withdrawn. The following rejections and/or objections are either newly applied or reiterated. They constitute the complete set presently being applied to the instant application.

Response to Arguments

2. First, with respect to the Obviousness-type Double Patenting Rejection, the applicants stated "340 Patent are directed to specifically to aggregated nanoparticle probes while the instant claims are directed to a nanoparticle having oligonucleotides bound thereto, both of which are different types of probes." Applicant's arguments have been fully considered but they are not persuasive.

Sequence Rules

3. This application now complies with the sequence rules and the sequences have been entered by the Scientific and Technical Information Center.

Information Disclosure Statement

Art Unit: 1637

4. The information disclosure statement (IDS) submitted on 31 Jan 03 has been entered.

The submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

Drawings

5. The drawings are objected to because the SEQ ID NO "identifier" is missing for some of the disclosed nucleotide sequences within the Figures (e.g. Figures 1-4). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Nonstatutory Double Patenting

6. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

7. Claims 237, 241-243, 251-253 & 264-265 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 3 & 4 of U.S. Patent No.6, 417, 340 B1. Although the conflicting claims are not identical, they are not

Art Unit: 1637

patentably distinct from each other because claims 1, 3 & 4 of U.S. Patent No. 6,417,340 B1 are drawn to a similar nanoparticle-oligonucleotide conjugate.

Claims 1, 3 & 4 of U.S. Patent No. 6,417,340 B1 are drawn to nanoparticle-oligonucleotide conjugates that comprise oligonucleotides attached to nanoparticles, oligonucleotides residing on the surface of the nanoparticles have a surface density that ensures stability of the nanoparticle-oligonucleotide conjugates, oligonucleotides having one type of recognition oligonucleotide and one type of diluent oligonucleotide, where the recognition oligonucleotide contains a spacer portion and a recognition portion, where the spacer portion is bound to the nanoparticles, where the recognition portion has a sequence that is complementary to a portion of a nucleic acid. Claims are drawn to the further limitation of metal nanoparticles that are gold.

8. Claims 237-265 and 433-441 provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 219 and 227-265 of copending Application No. US 2003/0044805 A1 March 06, 2003. Although the conflicting claims are not identical, they are not patentably distinct from each other.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

9. Claims 237-265 and 433-441 provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 219 and 227-265 of

Art Unit: 1637

copending Application No. US 2002/0172953 A1 November 21, 2002. Although the conflicting claims are not identical, they are not patentably distinct from each other.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

10. Claims 237-265 and 433-441 provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 237-265 of copending Application No. US 2002/0164605 A1 November 07, 2002. Although the conflicting claims are not identical, they are not patentably distinct from each other.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

11. Claims 237-265 and 433-441 provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 237-265 of copending Application No. US 2003/0059777 A1 March 27, 2003. Although the conflicting claims are not identical, they are not patentably distinct from each other.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

12. Claims 237-265 and 433-441 provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 237-265 of copending

Art Unit: 1637

Application No. US 2002/0160381 A1 October 31, 2002. Although the conflicting claims are not identical, they are not patentably distinct from each other.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

13. Claims 237-265 and 433-441 provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 237-265 of copending Application No. US 2002/0155462 A1 October 24, 2002. Although the conflicting claims are not identical, they are not patentably distinct from each other.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

14. Claims 237-265 and 433-441 provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 237-265 of copending Application No. US 2002/0155461 A1 October 24, 2002. Although the conflicting claims are not identical, they are not patentably distinct from each other.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

15. Claims 237-265 and 433-441 provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 237-265 of copending

Art Unit: 1637

Application No. US 2002/0155459 A1 October 24, 2002. Although the conflicting claims are not identical, they are not patentably distinct from each other.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

16. Claims 237-265 and 433-441 provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 237-265 of copending Application No. US 2002/0155458 A1 October 24, 2002. Although the conflicting claims are not identical, they are not patentably distinct from each other.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

17. Claims 237-265 and 433-441 provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 237-265 of copending Application No. US 2002/0155442 A1 October 24, 2002. Although the conflicting claims are not identical, they are not patentably distinct from each other.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

18. Claims 237-265 and 433-441 provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 237-265 of copending

Art Unit: 1637

Application No. US 2002/0146720 A1 October 10, 2002. Although the conflicting claims are not identical, they are not patentably distinct from each other.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

19. Claims 237-265 and 433-441 provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 237-265 of copending Application No. US 2002/0137072 A1 September 26, 2002. Although the conflicting claims are not identical, they are not patentably distinct from each other.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

20. Claims 237-265 and 433-441 provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 237-265 of copending Application No. US 2002/0137071 A1 September 26, 2002. Although the conflicting claims are not identical, they are not patentably distinct from each other.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

21. Claims 237-265 and 433-441 provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 237-265 of copending

Art Unit: 1637

Application No. US 2002/0137070 A1 September 26, 2002. Although the conflicting claims are not identical, they are not patentably distinct from each other.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

22. Claims 237-265 and 433-441 provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 237-265 of copending Application No. US 2002/0137058 A1 September 26, 2002. Although the conflicting claims are not identical, they are not patentably distinct from each other.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

23. Claims 237-265 and 433-441 provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 237-265 of copending Application No. US 2002/0127574 A1 September 12, 2002. Although the conflicting claims are not identical, they are not patentably distinct from each other.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

CONCLUSION

24. Claims 237-265 and 433-441 are rejected to for the reasons set forth above.

Art Unit: 1637

25. This action is a **final rejection** and is intended to close the prosecution of this application. Applicant's reply under 37 CFR 1.113 to this action is limited either to an appeal to the Board of Patent Appeals and Interferences or to an amendment complying with the requirements set forth below.

If applicant should desire to appeal any rejection made by the examiner, a Notice of Appeal must be filed within the period for reply identifying the rejected claim or claims appealed. The Notice of Appeal must be accompanied by the required appeal fee.

If applicant should desire to file an amendment, entry of a proposed amendment after final rejection cannot be made as a matter of right unless it merely cancels claims or complies with a formal requirement made earlier. Amendments touching the merits of the application which otherwise might not be proper may be admitted upon a showing a good and sufficient reasons why they are necessary and why they were not presented earlier.

A reply under 37 CFR 1.113 to a final rejection must include the appeal from, or cancellation of, each rejected claim. The filing of an amendment after final rejection, whether or not it is entered, does not stop the running of the statutory period for reply to the final rejection unless the examiner holds the claims to be in condition for allowance. Accordingly, if a Notice of Appeal has not been filed properly within the period for reply, or any extension of this period obtained under either 37 CFR 1.136(a) or (b), the application will become abandoned.

26. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shar Hashemi whose telephone number is (703) 305-4840. The examiner can normally be reached Monday-Friday from 8:00AM – 5:00PM EST or any time via

Art Unit: 1637

voice mail. If repeated attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gary Benzion, can be reached on (703) 308-1119.

The fax number for this examiner is (703) 746-9038. Before faxing any papers, please inform the examiner to avoid lost papers. Please note the faxing of papers must conform with the Notice to Comply published in the Official Gazette, 1096 OG 30 (November 15, 1989). Any inquiry of a general nature or relating to the status of this application should be directed to the group receptionist, Tracey Johnson, whose telephone number is (703) 305-2982.

Examiner Hashemi



Ethan Whisenant
Primary Examiner



**ETHAN WHISENANT
PRIMARY EXAMINER**